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- (71) Applicant (for all designated States except US): KANTO DENKA KOGYO CO. LTD. [JP/JP]; 2-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo 1000005 (JP).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): IINUMA, Hidehiko [JP/JP]; c/o Metarials for Recording Media Lab., Kanto Denka Kogyo Co., Ltd., 425, Kanai, Shibukawa-shi, Gunma 3370027 (JP). HARA, Kenkichi [JP/JP]; c/o Shibukawa Laboratory, Kanto Denka Kogyo Co., Ltd., 1497, Shibukawa-shi, Gunma 3778513 (JP). HAYASHI, Masatomo [JP/JP]; c/o Metarials for Recording Media Lab., Kanto Denka Kogyo Co., Ltd., 425, Kanai, Shibukawa-shi, Gunma 3370027 (JP).
- (74) Agent: OKIMOTO, Kazuaki; Yuasa and Hara, Section 206, New Ohtemachi Bldg., 2-1, Ohtemachi 2-chome, Chiyoda-ku, Tokyo 1000004 (JP).

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(54) Title: A MG-BASED FERRITE, AN ELECTROPHOTOGRAPHIC DEVELOPMENT CARRIER CONTAINING THE FER-RITE, AND A DEVELOPER CONTAINING THE CARRIER

(57) Abstract: This invention provides an Mg-based ferrite carrier composed of an environment-friendly material meeting environmental regulations, and an electrophotographic developer comprising the carrier. The carrier and the developer of this invention realize high image quality and improved gradation properties. This invention also provides a method for producing the Mg-based ferrite material having a saturation magnetization of from 30 to 80 emu/g and a dielectric breakdown voltage of from 1.0 to 5.0 kV, and having the composition of the formula (1). The above properties are obtained by controlling conditions of sintering and heating treatments. CaaMgbFecOd (1) wherein a, b, and c satisfy 0.10 b/(b+c/2) 0.85 and 0 R(Ca) 0.10; R(Ca) is expressed as R(Ca) = a ~Fw(CaO) / (a ~Fw(CaO) + b ~Fw(MgO) + (c/2) ~Fw(Fe2O3)) (Fw(A): formula weight of A j; and d is determined by oxidation numbers of Ca, Mg and Fe.



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